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operator, and enabling said vehicle operator to formulate a response to said instructions and cause said response to be forwarded to said controller processing circuitry,

Comd. C⁵ said [controller] processing circuitry being responsive to a response formulated by said vehicle operator to amend said instructions.

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--~~41~~. (New) The system of claim ~~40~~ wherein said instruction includes an identification of a route to be followed by said vehicle, and said response modifies said route.--

Remarks

In response to the Examiner's Office Action, claims 32-33 have been canceled, and claim 37 made dependent upon claim 1. An additional dependent claim 41 has been added. Claims 1 and 31 have been amended to overcome the Examiner's objections under 35 USC §112, second paragraph. As a result, claims 1-31 and 34-41 are now pending. Of these, claims 1 and 34 are independent.

Applicant thanks the Examiner for participating in a telephone conference with the undersigned and Mr. Chris C. Smith on April 3, 1997. The substance of the interview is summarized by the Examiner's Interview Summary and in the following remarks. A declaration of Mr. Smith under Rule 132 will also be submitted further detailing his remarks at the interview.

As noted at the interview and detailed by Mr. Smith's declaration, the present invention relates to vehicle management systems, and represents a radical departure from vehicle management systems known in the art, such as those described by the patents cited by the Examiner. Specifically, in known automated vehicle management systems, a human being is an integral part of the dispatch and vehicle monitoring function. Advances in existing systems focus upon improving the speed and efficiency with which vehicle management information is delivered to the human dispatcher.

As Mr. Smith notes in his declaration, conventional vehicle management systems are making misguided use of the available computing power and technological innovations. Specifically, the stream of information collected by various technologies, is brought to a virtual standstill at the point where it is delivered to the human dispatcher for decisionmaking. At this point, human frailty prevents the information from being used in an efficient or effective manner.

The present invention takes a radically different approach. Specifically, the present invention is a truly automated vehicle management system, which does not rely on human involvement in vehicle management, whether as part of dispatching and monitoring of vehicles, system status management, or other vehicle management functions. By eliminating the human element, the invention represents a significant advancement over those systems that have come before.

Claim 1 describes a system in keeping with this fundamental principle of the present invention. Specifically, in the language of claim 1, a "dispatching process [is performed] without human intervention", including the steps of identifying "a need for immediate transportation service", and responding by "instructing a vehicle to provide [the] transportation service". Thus, without any human involvement, the system of claim 1 determines whether and when to instruct a vehicle to provide a transportation service. Furthermore, as indicated in claim 1, the system of that claim performs a "monitoring process without human intervention", through which "vehicle activity information" is reviewed to "identify transportation services which are not being adequately provided". Thus, in addition to original dispatching of vehicles, the human element is also removed from vehicle monitoring.

This is a radical departure from any of the systems now known, every one of which requires a human involvement in the dispatching decision, or in subsequent vehicle monitoring, or both. Applicant submits that, because they are not subject to human frailty, systems in accordance with the present invention are substantially more able to provide reliable vehicle management than prior systems which rely on human decisionmaking, whether in original selection of a vehicle for dispatching, or in providing diligent vehicle monitoring.

Additional improvements can be provided in accordance with principles of the present invention. Specifically, a truly automated vehicle management system can also provide robust system status management, e.g., prepositioning of vehicles to improve future service. Specifically, as indicated in claim 34, the automated vehicle management system also performs a "system status management process without human intervention". This process involves real-time evaluation of the "current vehicle activity information" as well as records identifying requested services, to "determine and predict future needs for transportation services". Then, by "comparing [the] future needs to expected availability of transportation services", the system can automatically "identify future times at which available transportation services will not meet predicted needs, and generat[e], without human intervention, instructions directed to said vehicles directing said vehicles to identified locations so as to improve the availability of transportation services at future times". Thus, in real time, the automated system can predict and prepare for future needs.

As noted in the interview with the Examiner, in prior systems, system status management, if it is performed at all, was performed based on anecdotal information regarding typical usage patterns. Due to the limitations of human dispatchers, system status management had not been performed in "real time", based on current vehicle status and pending or upcoming vehicle service

requests. Accordingly, the effectiveness of system status management has been limited.

It will be appreciated that, according to principles of the present invention, by eliminating the human element, and providing for truly automated system status management which takes advantage of available real time information on vehicles and upcoming needed services, the efficiency and effectiveness of system status management can be radically improved.

In accordance with all of the foregoing, Applicant submits that the claims clearly distinguish over the art of record, and early transmission of a Notice of Allowability is requested.

If any charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,



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